

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A [[S]]sensing device for sensing a physical parameter such as radiation, temperature or the like, comprising:
 - an analogue sensor element sensitive for the physical parameter to be sensed and outputting an analogue signal and
 - an analogue two digital analogue-to-digital converter (ADC) having a[[n]] MOS input stage for receiving the analogue output signal of the sensor element so as to convert the analogue output signal to a digital output signal,
 - wherein the analogue sensor element is passive infra-red sensor element and
 - wherein the ADC has a different MOS input stage to which the output terminals of the passive infra-red sensor element are directly connected.
2. – 11. (Canceled)
12. (New) The sensing device according to claim 1, wherein the output of the ADC is connected to a digital feedback logic in turn connected to a digital-to-analogue converter (DAC) the output signal of which is added to the output signal of the analogue sensor element.
13. (New) The sensing device according to claim 1, wherein the ADC is a sigma-delta-converter comprising an integrator and a comparator connected in series to each other.
14. (New) The sensing device according to claim 1, further comprising a decimation filter receiving the output signal of the ADC.

15. (New) The sensing device according to claim 1, further comprising a compensation temperature sensor for sensing ambient temperature.
16. (New) The sensing device according to claim 1, further comprising a lens for selecting a direction from which radiation can be received by the analogue sensor element so as to be sensed.
17. (New) The sensor device according to claim 1, further comprising a single line output providing the digital output signal for transmitting to a signal processing unit.
18. (New) The sensing device of claim 7, wherein the signal processing unit comprises a microcontroller.
19. (New) The sensing device of claim 1, wherein the physical parameter comprises radiation.
20. (New) The sensing device of claim 1, wherein the physical parameter comprises temperature.